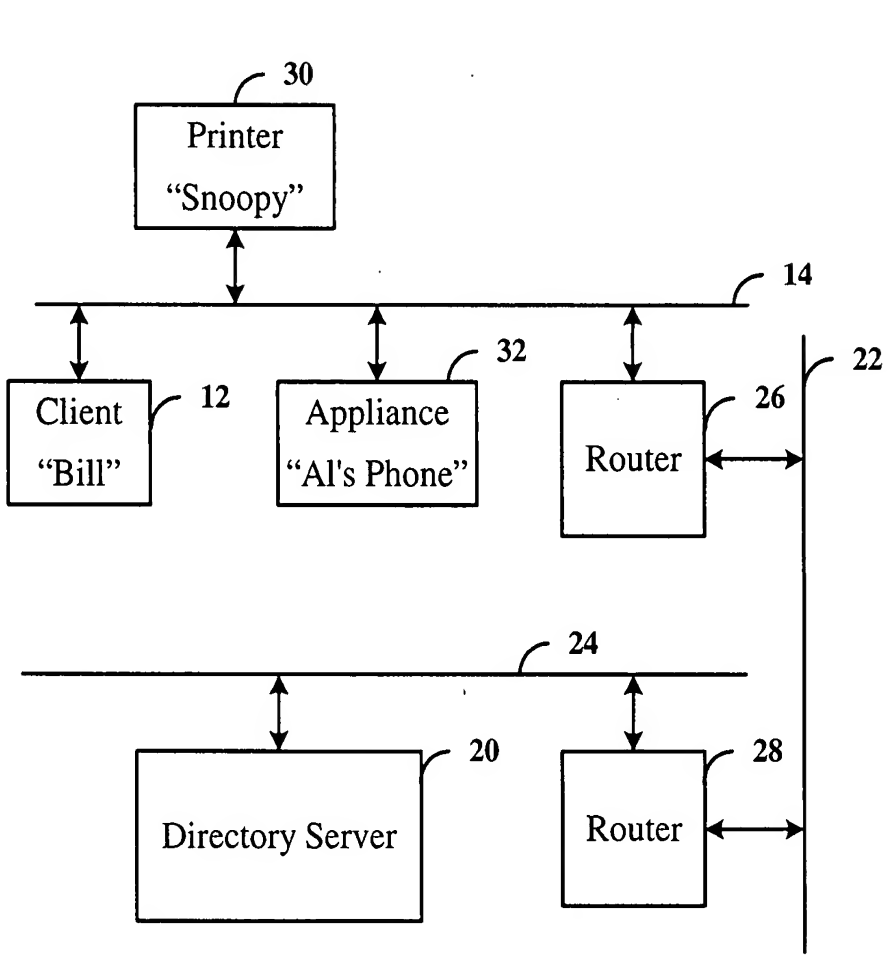
10a
30
Printer
"Snoopy"
14
Client
"Bill"
12
32
Appliance
"Al's Phone"
Router
26
22
24
Directory Server
20
Router
28

FIG. 1

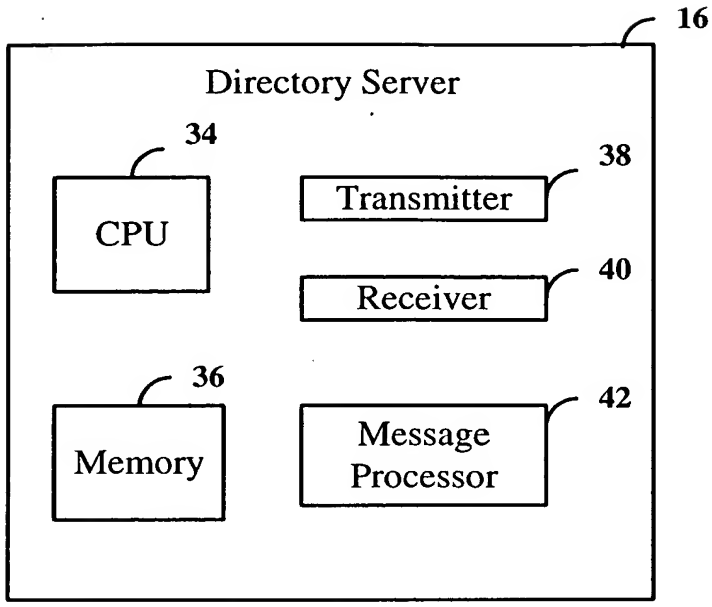
16
Directory Server
34
CPU
38
Transmitter
40
Receiver
36
Memory
42
Message Processor

FIG. 2

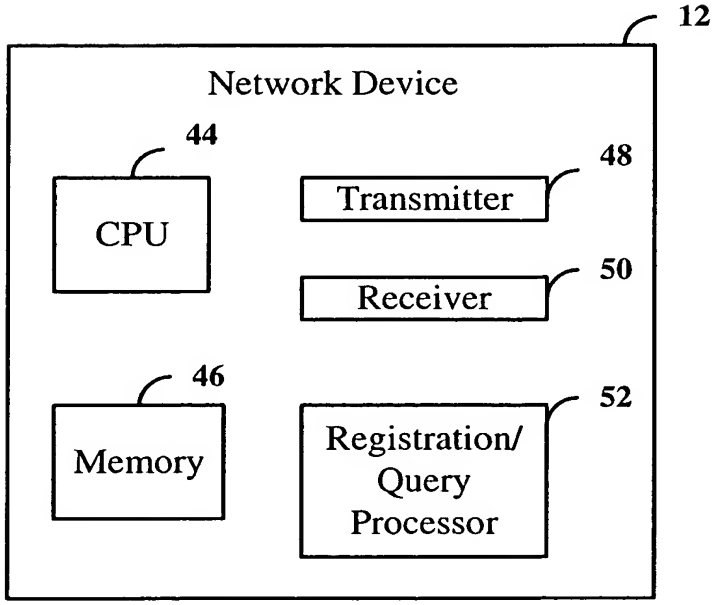
12
Network Device
44
CPU
48
Transmitter
50
Receiver
46
Memory
52
Registration/ Query Processor

FIG. 3

Source Address	Device Type	Device Name
67.113.234.12	Printer	Snoopy
82.24.117.8	Client	Hillary
117.33.2.45	Client	Joe
117.33.2.45	Printer	Linus
117.33.2.45	Printer	Lucy
67.113.234.12	Client	Bill
67.113.234.12	IP Phone	Al's Phone
⋮	⋮	⋮

54a

FIG. 4A

54b

Source Address	Internal Address	Device Type	Device Name
67.113.234.12	192.168.1.101	Printer	Snoopy
82.24.117.8	-	Client	Hillary
117.33.2.45	208.210.1.47	Client	Joe
117.33.2.45	208.210.1.5	Printer	Linus
117.33.2.45	208.210.1.69	Printer	Lucy
67.113.234.12	192.168.1.100	Client	Bill
67.113.234.12	192.168.1.102	IP Phone	Al's Phone
⋮	⋮	⋮	⋮

FIG. 4B

Source Address	Equivalent Source Address 1	Equivalent Source Address 2	Equivalent Source Address 3	Equivalent Source Address 4	...
67.113.234.12	67.113.234.13	67.113.234.14	67.113.234.15	67.113.234.16	-
117.33.2.45	4.3.116.157	17.1.100.65	-	-	-
⋮	⋮	⋮	⋮	⋮	⋮

56a

FIG. 5

54c

Source Address	Internal Address	Device Type	Device Name
67.113.234.12	192.168.1.101	Printer	Snoopy
82.24.117.8	-	Client	Hillary
117.33.2.45	208.210.1.47	Client	Joe
4.3.116.57	208.210.1.5	Printer	Linus
17.1.100.65	208.210.1.69	Printer	Lucy
67.113.234.13	192.168.1.100	Client	Bill
67.113.234.14	192.168.1.102	IP Phone	Al's Phone
⋮	⋮	⋮	⋮

FIG. 6

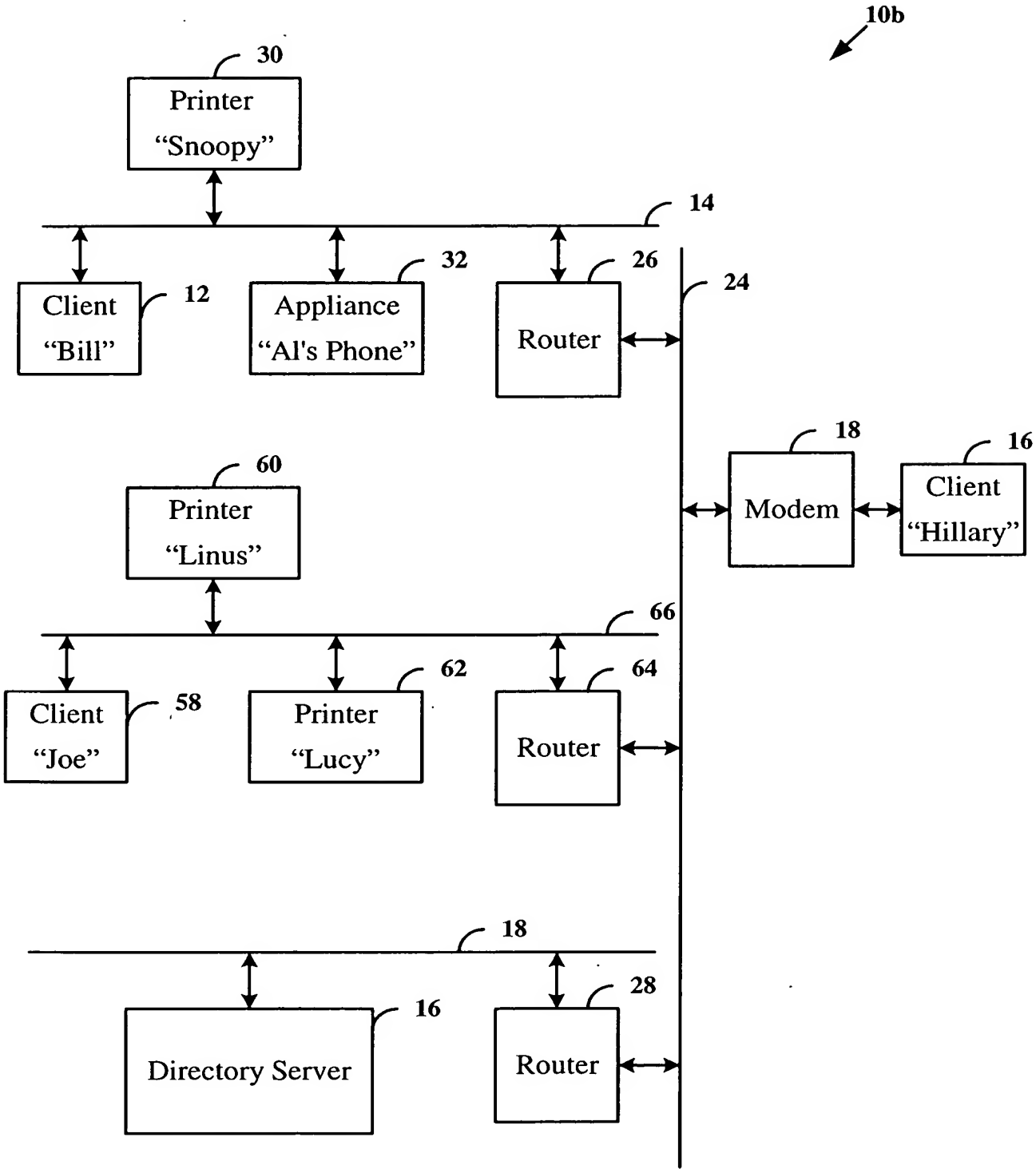
10b
30
Printer
"Snoopy"
14
Client
"Bill"
12
32
Appliance
"Al's Phone"
26
Router
24
18
Modem
16
Client
"Hillary"
60
Printer
"Linus"
66
Client
"Joe"
58
62
Printer
"Lucy"
64
Router
18
Directory Server
16
28
Router

FIG. 7

56b

Source Address	Equiv. Source Address 1	Equiv. Source Address 2	Equiv. Source Address 3	Equiv. Source Address 4	Equiv. Source Address 5	Equiv. Source Address 6	Equiv. Source Address 7
67.113.234.12	67.113.234.13	67.113.234.14	67.113.234.15	67.113.234.16	117.33.2.45	4.3.116.157	17.1.100.65
82.24.117.8	117.33.2.45	4.3.116.157	17.1.100.65	-	-	-	-
⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮

FIG. 8

54d

Source Address	Internal Address	Device Type	Device Name	Access Rights	Characteristics
67.113.234.12	192.168.1.101	Printer	Snoopy	Password Required	High Speed B&W
82.24.117.8	10.10.99.32	Client	Hillary	Printers: All IP Phones: None	Desktop
117.33.2.45	208.210.1.47	Client	Joe	Printers: All B&W IP Phones: None	PDA
4.3.116.57	208.210.1.5	Printer	Linus	-	Low Speed B&W
17.1.100.65	208.210.1.69	Printer	Lucy	Preferred Members Only	Color
67.113.234.13	192.168.1.100	Client	Bill	Printers: Low Speed B&W IP Phones: All	Wireless Laptop
67.113.234.14	192.168.1.102	IP Phone	Al's Phone	Printers: All Color IP Phones: All	Secure
⋮	⋮	⋮	⋮	⋮	⋮

FIG. 9

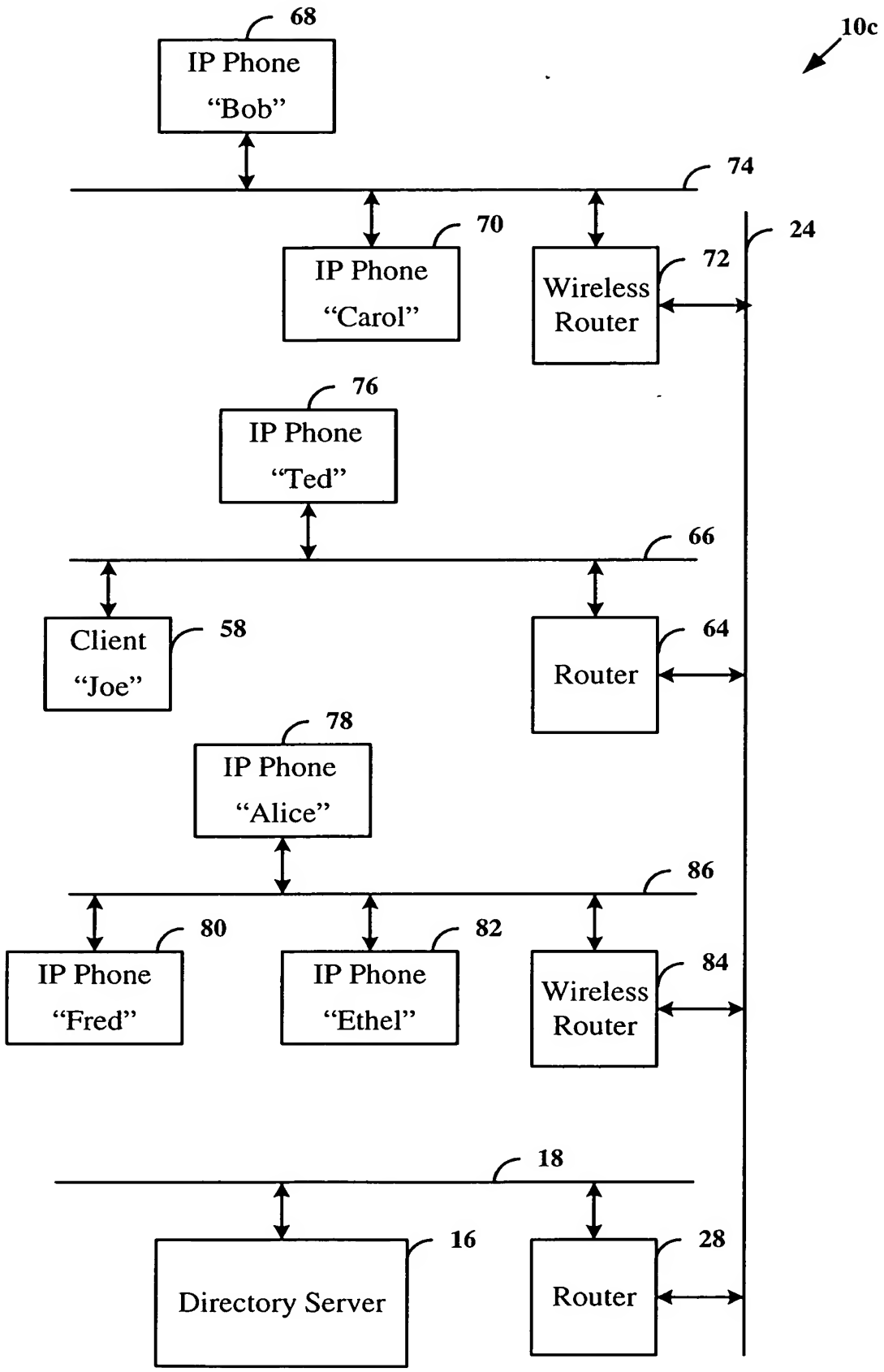
10c
68
IP Phone
"Bob"
74
70
IP Phone
"Carol"
72
Wireless
Router
24
76
IP Phone
"Ted"
66
Client
"Joe"
58
Router
64
78
IP Phone
"Alice"
86
80
IP Phone
"Fred"
82
IP Phone
"Ethel"
84
Wireless
Router
18
16
Directory Server
28
Router

FIG. 10

54e

Source Address	Internal Address	Device Type	Device Name	Location
75.8.92.1	192.168.1.102	IP Phone	Bob	Building A, 2nd Floor
75.8.92.1	192.168.1.103	IP Phone	Carol	Building A, 3rd Floor
117.33.2.45	208.210.1.63	IP Phone	Ted	Building A, Conference Room D
19.4.79.65	115.48.1.2	IP Phone	Alice	Building B
19.4.79.65	115.48.1.3	IP Phone	Fred	Building B
19.4.79.65	115.48.1.4	IP Phone	Ethel	Building B
117.33.2.45	208.210.1.47	Client	Joe	Building A, Cubicle 1A238
⋮	⋮	⋮	⋮	⋮

FIG. 11

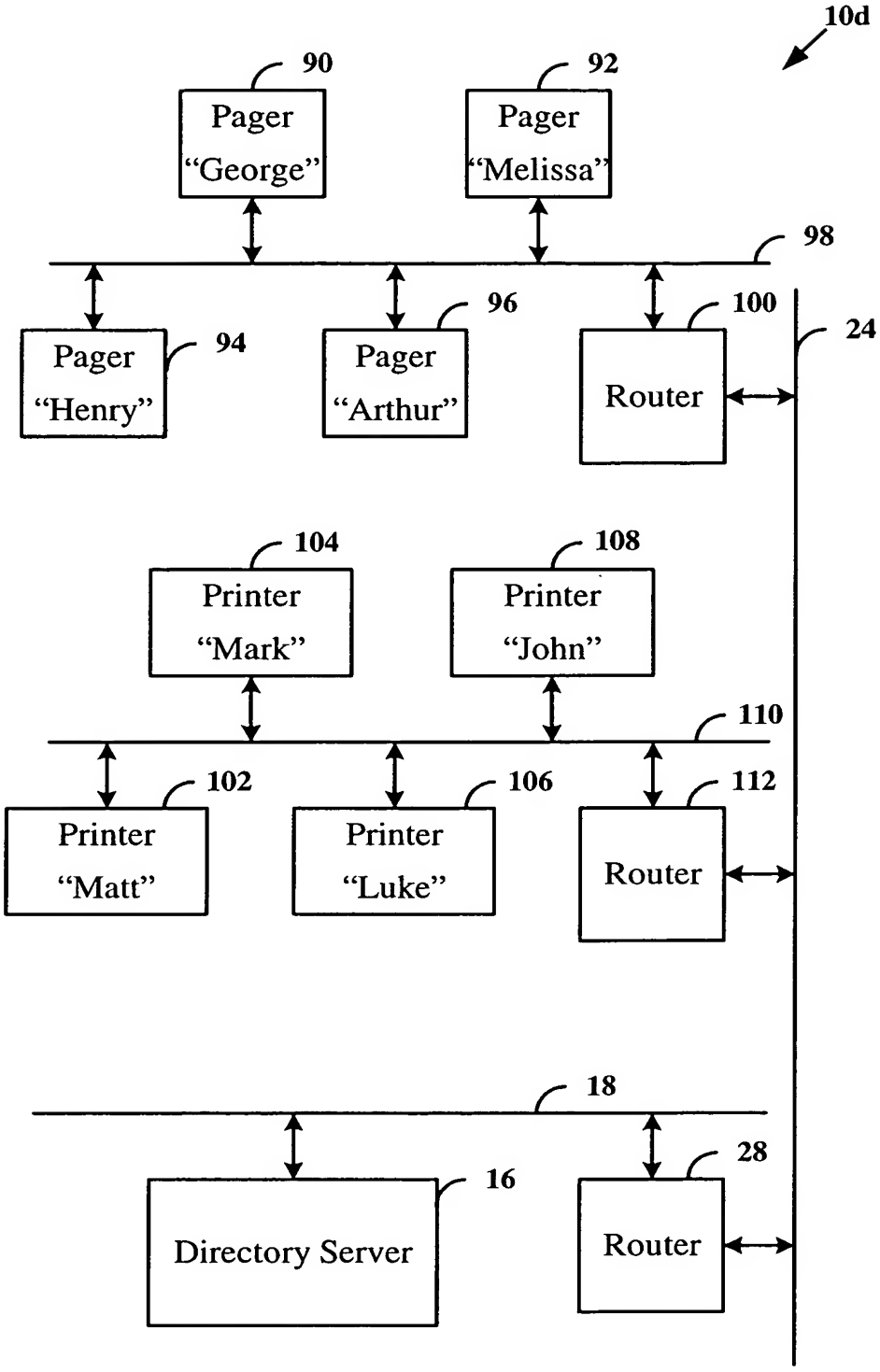
10d
90
Pager
"George"
92
Pager
"Melissa"
98
94
Pager
"Henry"
96
Pager
"Arthur"
100
Router
24
104
Printer
"Mark"
108
Printer
"John"
110
102
Printer
"Matt"
106
Printer
"Luke"
112
Router
18
16
Directory Server
28
Router

FIG. 12

54f

Source Address	Device Name	Device Type	Internal Address/ Pager Number	Location	Support Status/ Restrictions
2.67.13.120	George	Pager	415-555-1212	San Francisco	Any Customer
2.67.13.120	Melissa	Pager	415-555-1213	San Francisco	Premier Customers
2.67.13.120	Henry	Pager	212-555-1212	New York	Any Customer
2.67.13.120	Arthur	Pager	800-555-1212	US	Priority Fee Support
45.39.1.200	Matt	B&W Printer	78.5.23.42	New York	No Support
45.39.1.200	Mark	Color Printer	78.5.23.50	Dallas	Per Use Fee Support
45.39.1.200	Luke	Low Speed B&W Printer	78.5.23.119	San Francisco	Support - Premier
45.39.1.200	John	Multifunction Device	78.5.23.13	San Francisco	Support - Regular

FIG. 13